SAN JOSE TO MERCED

Millpond Mobile Homes

Community Briefing

January 20, 2011

CALIFORNIA High-Speed Rail

WHY WE NEED IT

Status quo is not an option

Population Growth

- California's population now: 38 million By 2035: 50 million

We can build…

- New freeways, airport runways and more departure gates to address our expected population growth

or

- 800-mile high-speed train system, powered by 100% renewable electricity expected to be generated by clean wind and solar energy

CALIFORNIA High-Speed Rail

WHY WE NEED IT

Jobs

- 600,000 full-time, one-year, construction-related job-equivalents
- 5,000 permanent operations and maintenance jobs
- 450,000 economy-wide jobs by 2035

Mobility

- "Economic power is how fast you move people and goods around the state." Gov. Arnold Schwarzenegger, January 15, 2008.

Environment

- Reduced greenhouse gases
- AB 32: California's 2006 landmark legislation to reduce greenhouse gas emissions 25% by 2020

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THE BIG PICTURE

- "Big picture" video available on Authority website

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MOMENTUM

In 2008 Californians passed Proposition 1A

- $9 billion bond measure – first state to pass funding in the nation

The federal government supports California's system through

- ***The American Recovery & Reinvestment Act***
  - Federal grant awarded in January 2010, $1.85 billion specifically for high-speed rail
  - In December 2010, an additional $616 million redistributed to California (50 percent match with state funds

- ***The High-Speed Intercity Passenger Rail Program***
  - Granted $715 million in October 2010 – 30 percent match with state funds

Federal funds matched with state and local funding currently available for construction: $5.5 billion

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DIVERSE SUPPORT

Private Sector Interest

- Seeking $10-12B, such as public-private partnerships (P3)
- Gaining Financial Advisor in early 2011 to manage and maintain private sector interest
- In development – Innovative finance and loan programs that the Authority or a private investment concessionaire could use to reduce borrowing costs

Strong International Interest

- Partnerships to share planning, construction, operations and finance expertise with Japan, China, France, Germany, Italy, Belgium, Korea, Spain and more.

WHERE WE ARE NOW

Transitioning from Planning to Implementation

Some recent steps:

- New leadership on board, including world-class CEO, project management team and expert financial advisor
- Memoranda of understanding with eight countries around the world to leverage their expertise in establishing California's system
- Selection of starting point for construction that builds the backbone of a statewide system
- More federal funding secured than any other state
- Found in 2010 public opinion survey that more than three in four Californians want project to move forward

WHERE WE ARE NOW

Transitioning from Planning to Implementation

Project-level EIR/EIS in process for all sections

- ✓ All sections have completed scoping and completed the analysis of alternative alignments or have it underway
- ✓ Receiving public input on alternative alignments
- ✓ September 2011-October 2012: Target dates for state and federal certification of all seven Phase 1 sections
- ✓ On track to meet requirements environmental clearance in order to apply ARRA funding toward infrastructure construction

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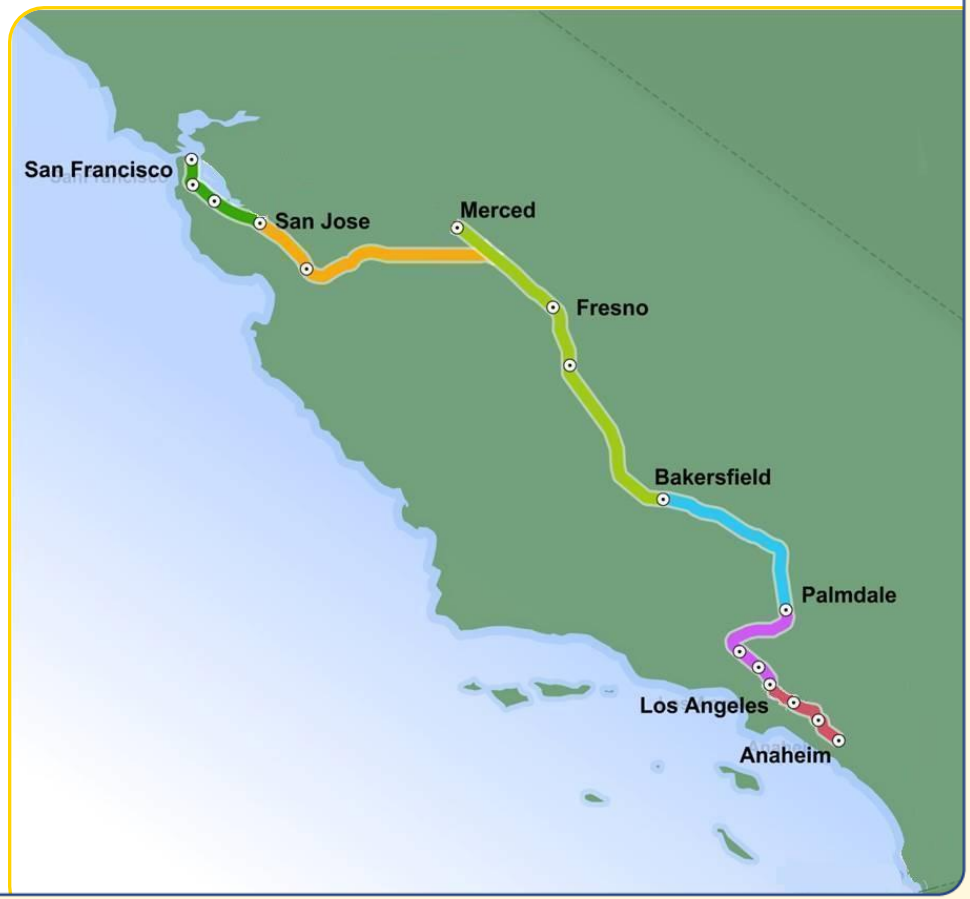
PHASE 1

Connecting Bay Area to the Los Angeles Metro Area by 2020

- San Francisco-San Jose
- San Jose-Merced
- Merced-Fresno
- Fresno-Bakersfield
- Bakersfield-Palmdale
- Palmdale-Los Angeles
- Los Angeles-Anaheim



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SUBSEQUENT SECTIONS AND ALTAMONT CORRIDOR

- Los Angeles-San Diego (via Inland Empire)
- Merced-Sacramento
- Altamont Corridor Rail Project

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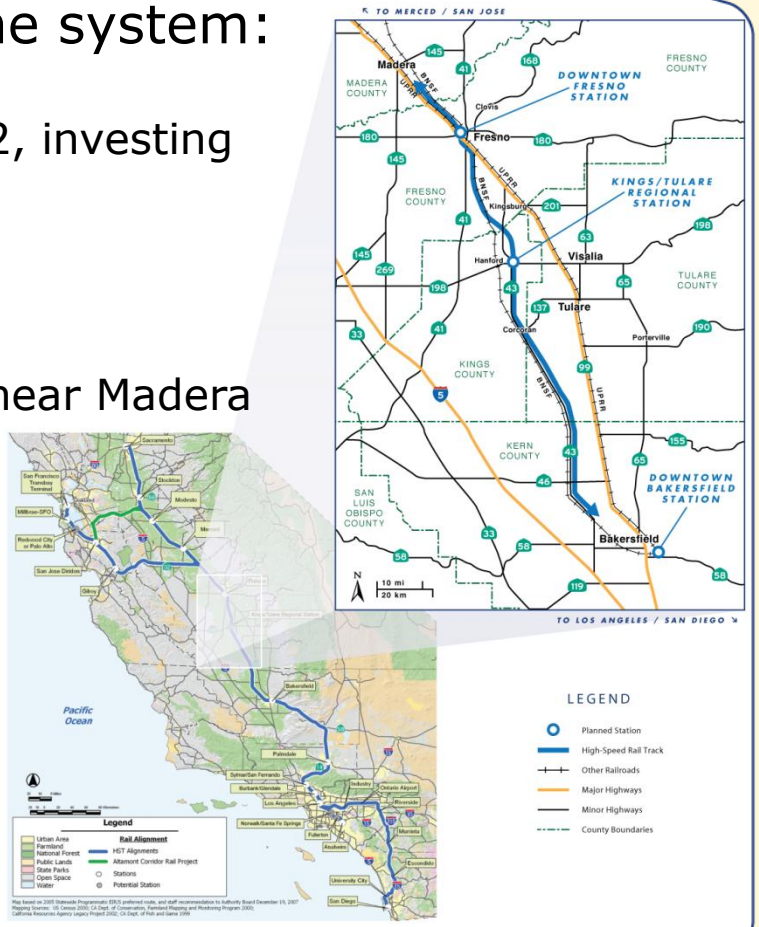
THE STARTING POINT

Initial infrastructure construction will begin in the Central Valley, the backbone of the system:

- Construction starting in second half of 2012, investing $5.5 billion into the economy
- Potential to create nearly 100,000 jobs
- More than 120 miles from north of Fresno near Madera to Bakersfield – a choice that:
  - Meets state and federal requirements
  - Gives the greatest flexibility to build both north and south as funding becomes available
  - Constitutes the backbone of a system that will reach across the whole state



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NEXT STEPS

In 2011, CHSRA will:

- Complete Final EIR/EIS documents + 15 percent design for first section, awaiting execution of NOD/ROD
- Negotiate Cooperative Agreement with FRA to fund first contracts
- Issue RFP to prospective teams for first contracts
- Prepare state appropriations request and financing plan for use of Prop 1A funds

2015

- Begin testing the first prototype trainsets

2018-20

- Launch operations on Anaheim-Los Angeles-San Francisco

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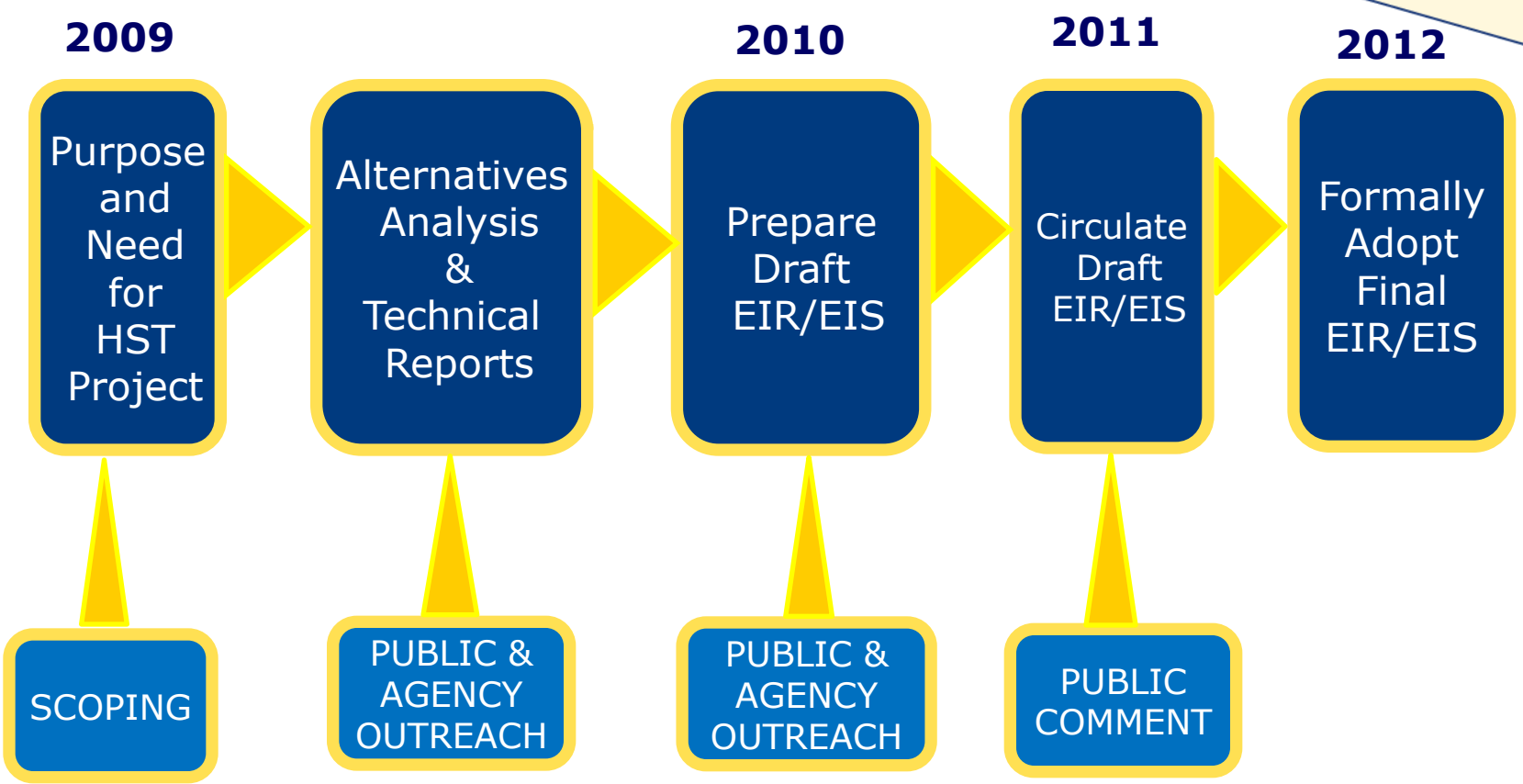
SAN JOSE TO MERCED ENVIRONMENTAL REVIEW SCHEDULE



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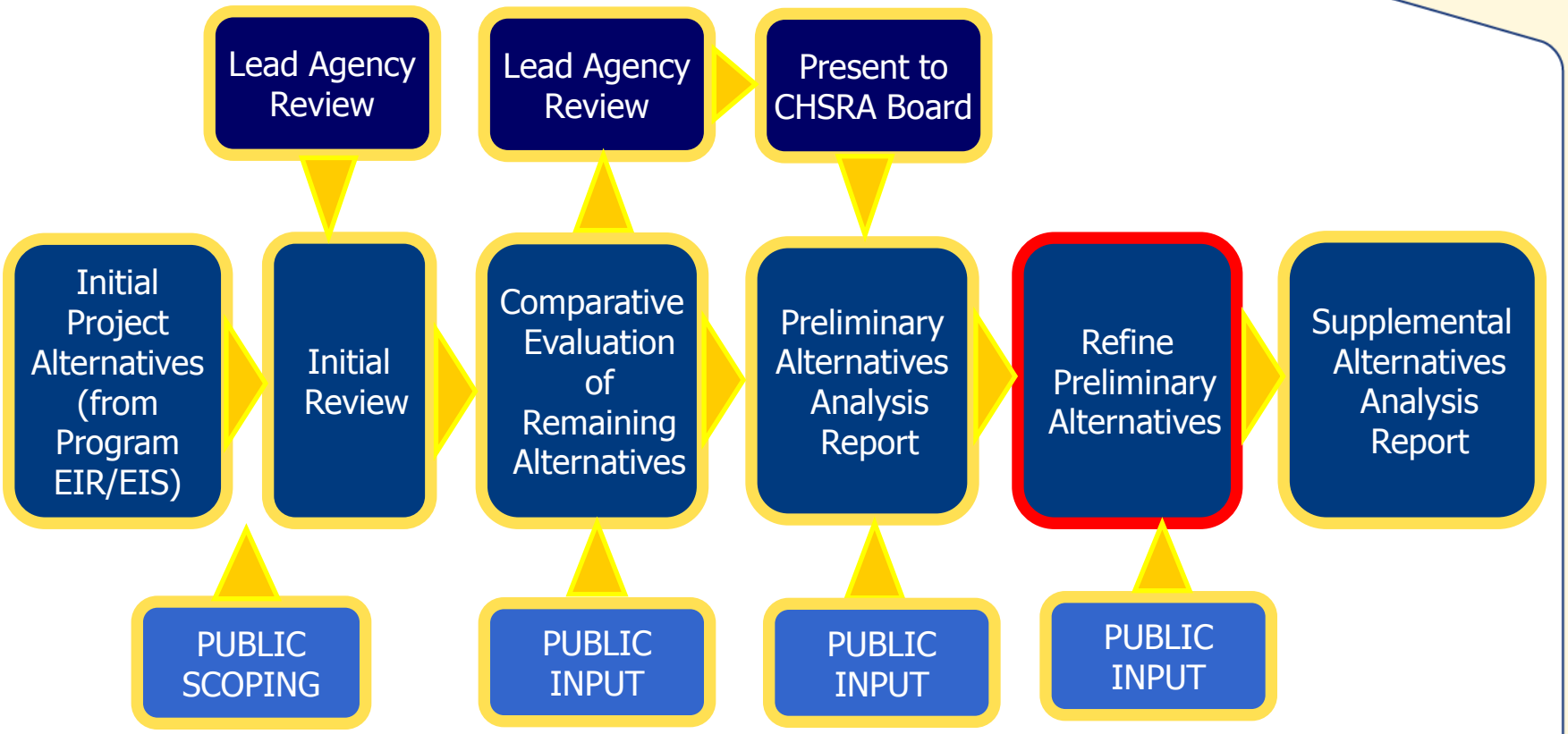
ALTERNATIVES ANALYSIS PROCESS



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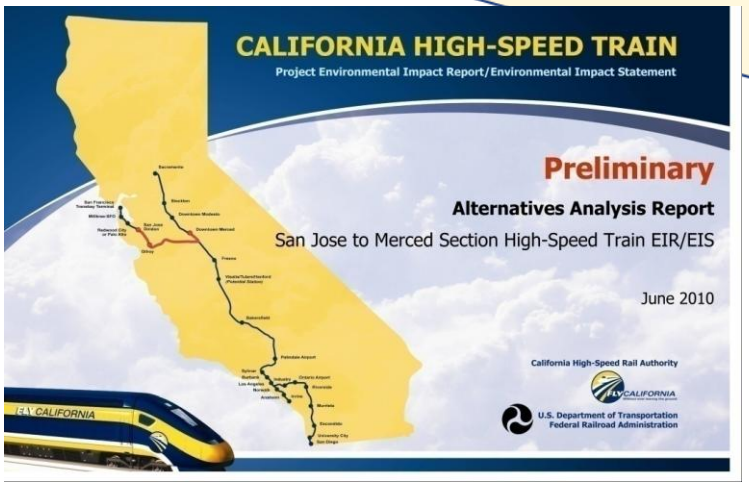
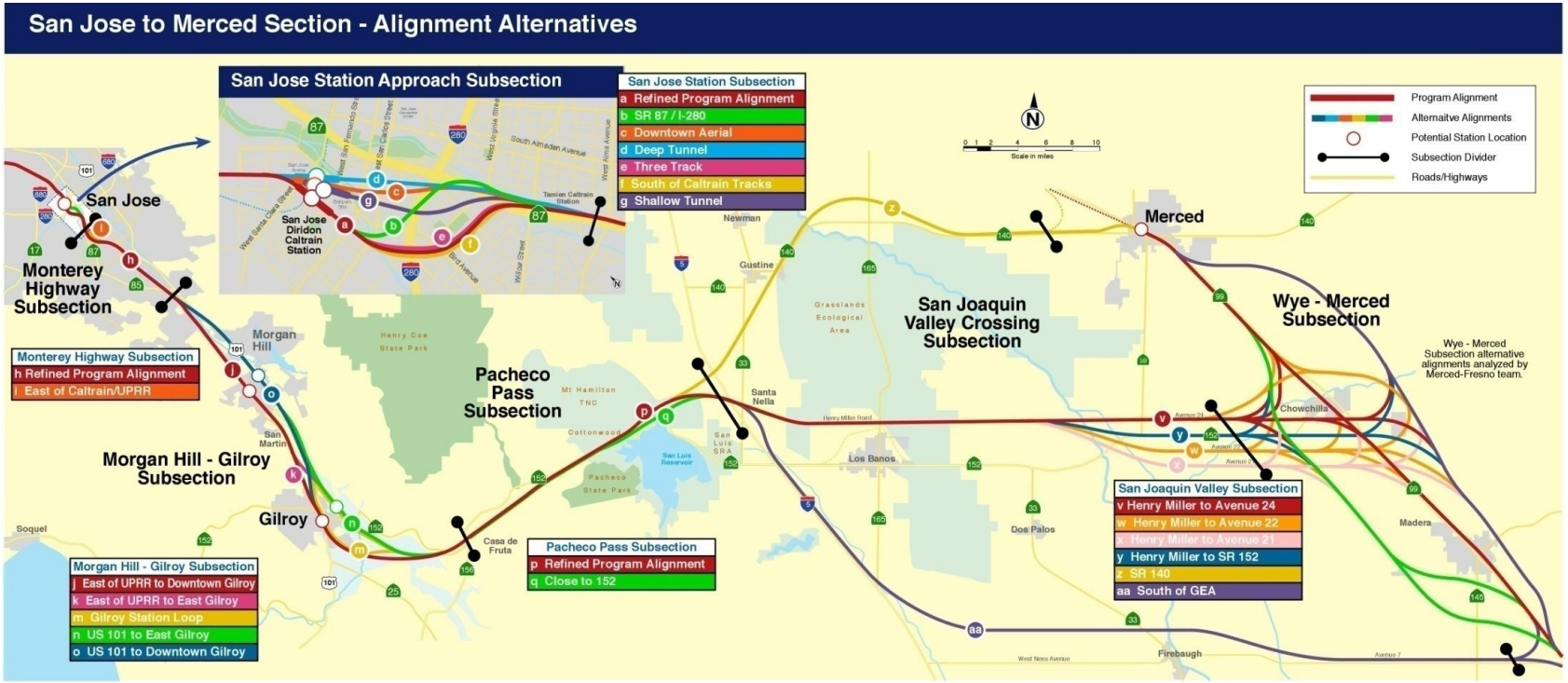
PRELIMINARY ALTERNATIVES ANALYSIS

- Preliminary Alternatives Analysis posted *at* www.cahighspeedrail.ca.gov
- Evaluated alignment & stations from scoping (Spring 2009 – Fall 2009)



- Initial presentation to Board December 3, 2009
- Preliminary AA includes input from Fall 2009-Spring 2010
- Technical Studies – e.g., tunnel options in San Jose
- Extensive agency & public outreach

SUB-SECTIONS FOR EVALUATION



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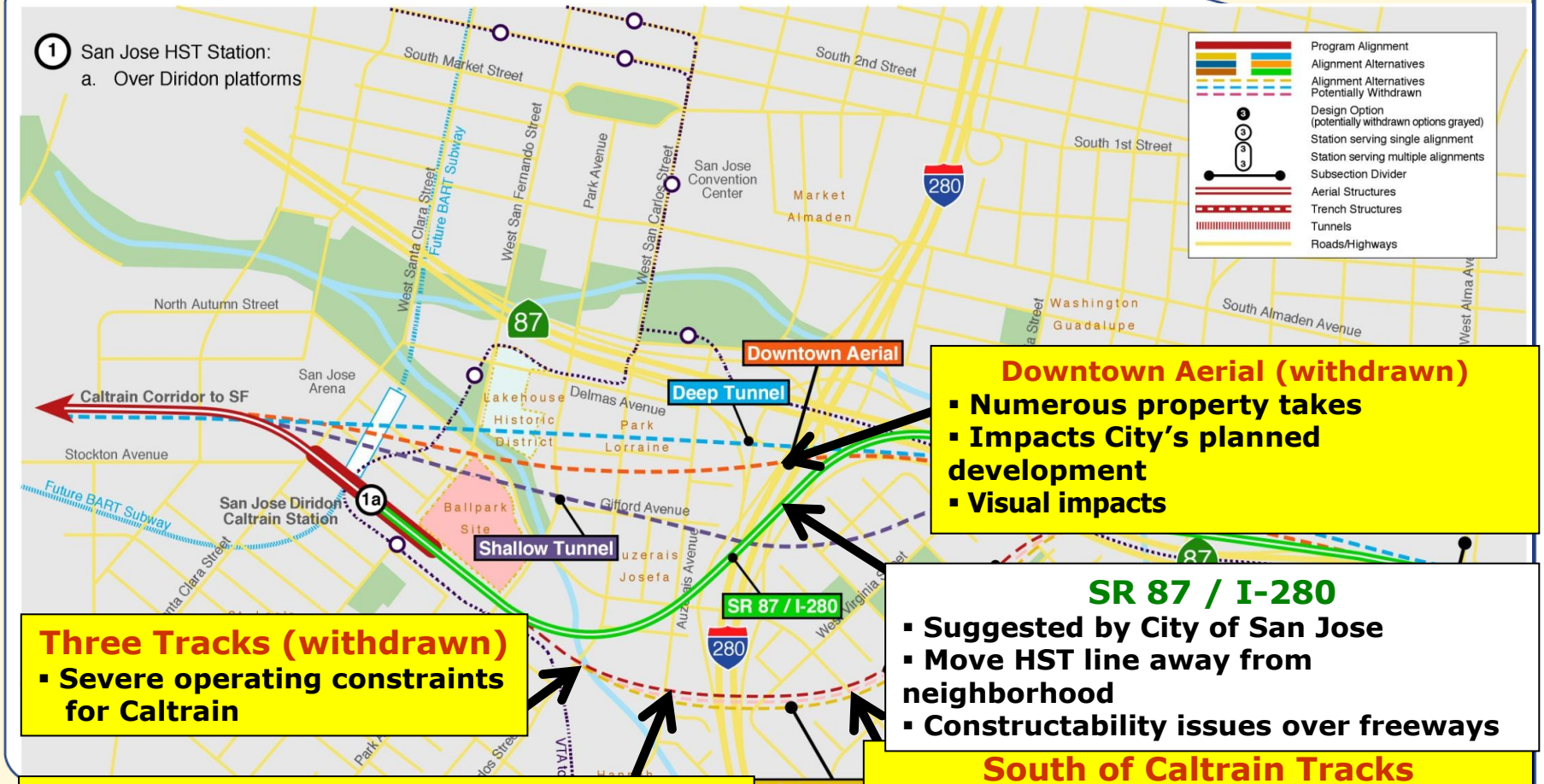
DOWNTOWN SAN JOSE SUB-SECTION



Downtown Aerial (withdrawn)
- Numerous property takes
- Impacts City's planned development
- Visual impacts

SR 87 / I-280
- Suggested by City of San Jose
- Move HST line away from neighborhood
- Constructability issues over freeways

Three Tracks (withdrawn)
- Severe operating constraints for Caltrain

South of Caltrain Tracks (withdrawn)
- Numerous property takes
- Park impacts

Refined Program Alignment (withdrawn)
- Impacts to Greater Gardiner Neighborhood

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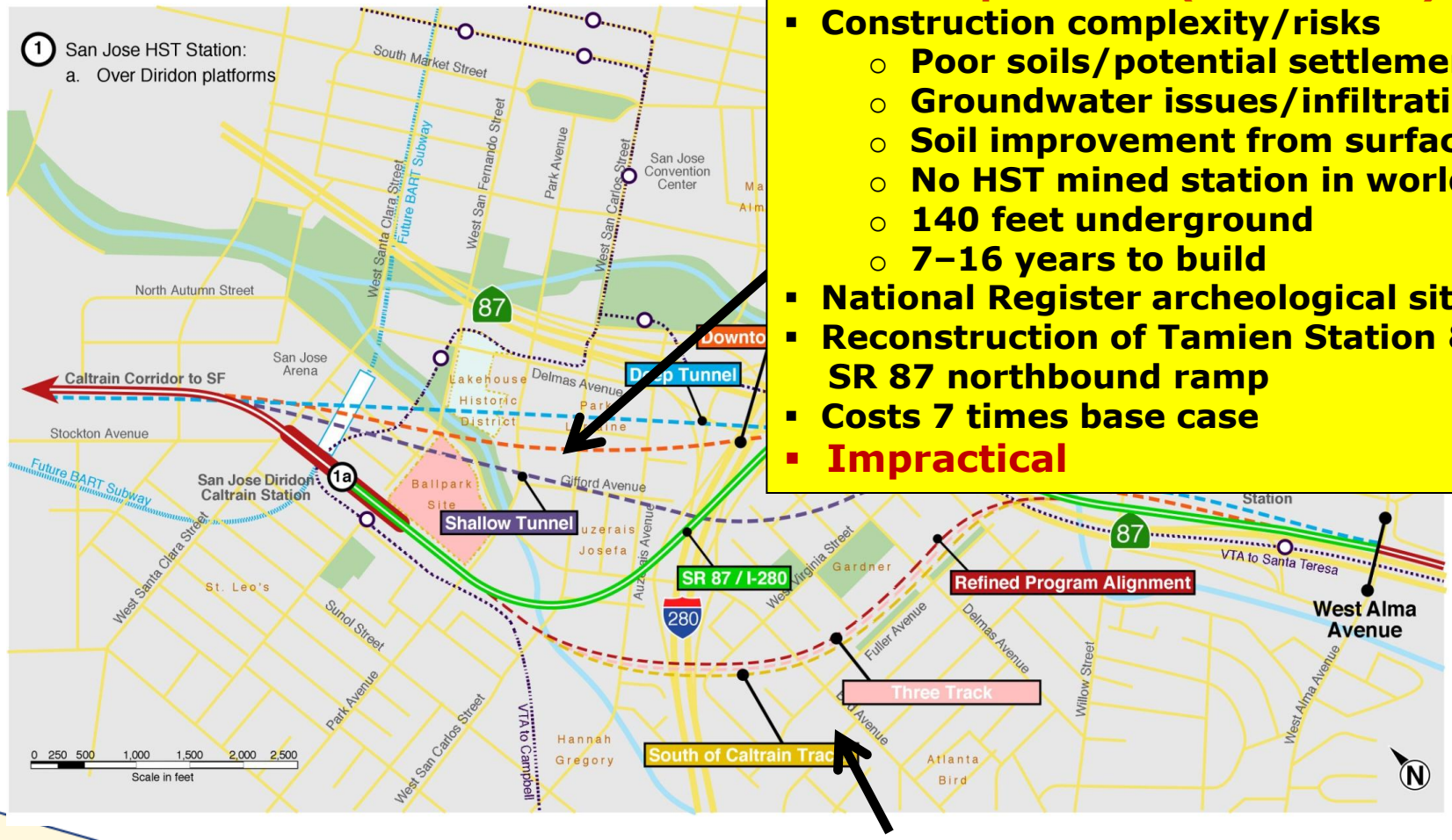
DOWNTOWN SAN JOSE SUB-SECTION



Deep Tunnel (withdrawn)

- Construction complexity/risks
  - Poor soils/potential settlement
  - Groundwater issues/infiltration
  - Soil improvement from surface
  - No HST mined station in world
  - 140 feet underground
  - 7–16 years to build
- National Register archeological site
- Reconstruction of Tamien Station & SR 87 northbound ramp
- Costs 7 times base case
- **Impractical**

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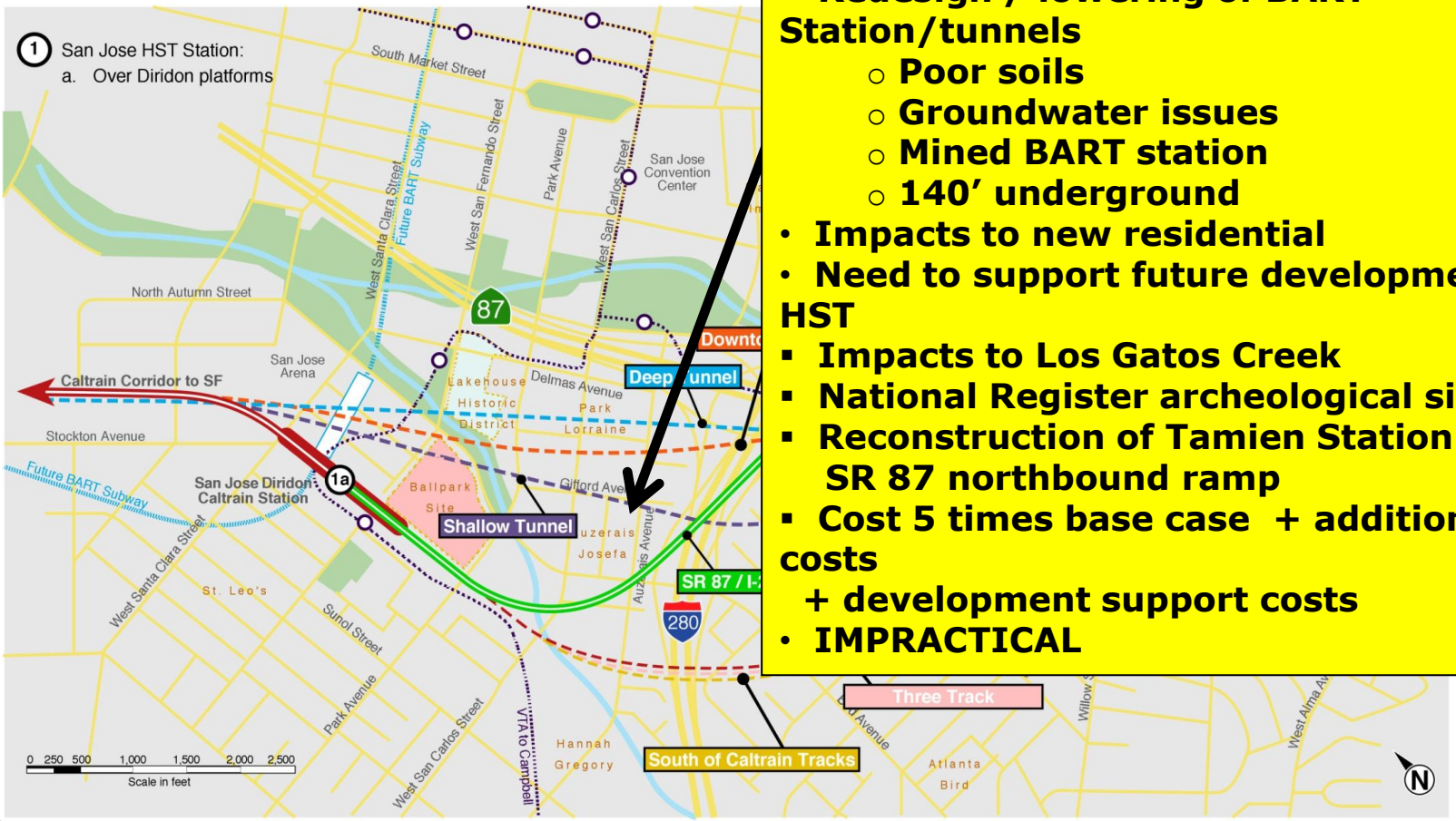
DOWNTOWN SAN JOSE SUB-SECTION



Shallow Tunnel (withdrawn)

- Redesign / lowering of BART Station/tunnels
  - Poor soils
  - Groundwater issues
  - Mined BART station
  - 140’ underground
- Impacts to new residential
- Need to support future development over HST
- Impacts to Los Gatos Creek
- National Register archeological site
- Reconstruction of Tamien Station & SR 87 northbound ramp
- Cost 5 times base case + additional BART costs
  + development support costs
- IMPRACTICAL

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I-280/SR-87 ALIGNMENT SIMULATION

*VIDEO AVAILABLE IN SJ-MERCED LIBRARY

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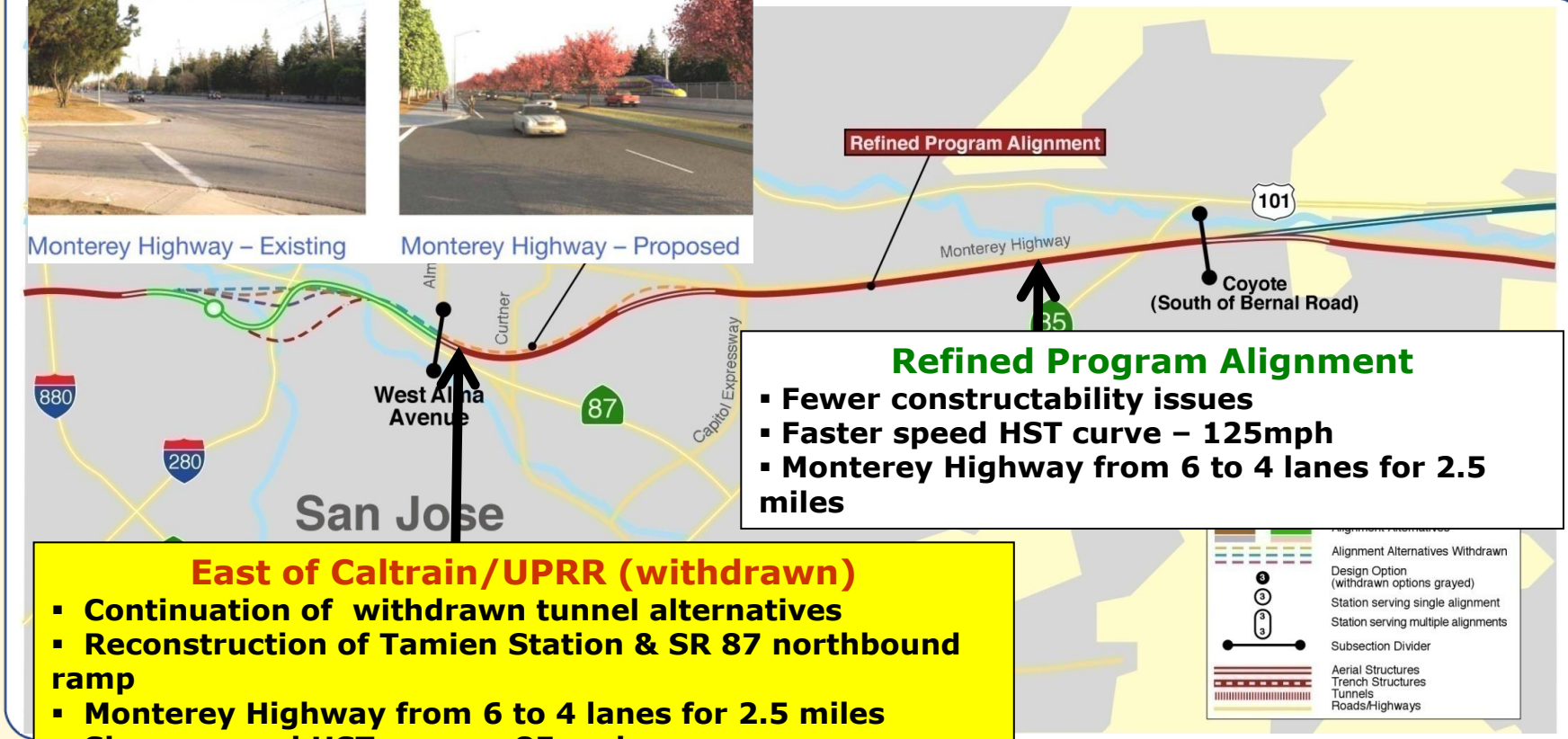
MONTEREY HIGHWAY SUB-SECTION

Monterey Highway – Existing

Monterey Highway – Proposed



Refined Program Alignment

- **Fewer constructability issues**
- **Faster speed HST curve – 125mph**
- **Monterey Highway from 6 to 4 lanes for 2.5 miles**

East of Caltrain/UPRR (withdrawn)

- **Continuation of withdrawn tunnel alternatives**
- **Reconstruction of Tamien Station & SR 87 northbound ramp**
- **Monterey Highway from 6 to 4 lanes for 2.5 miles**
- **Slower speed HST curve – 85 mph**

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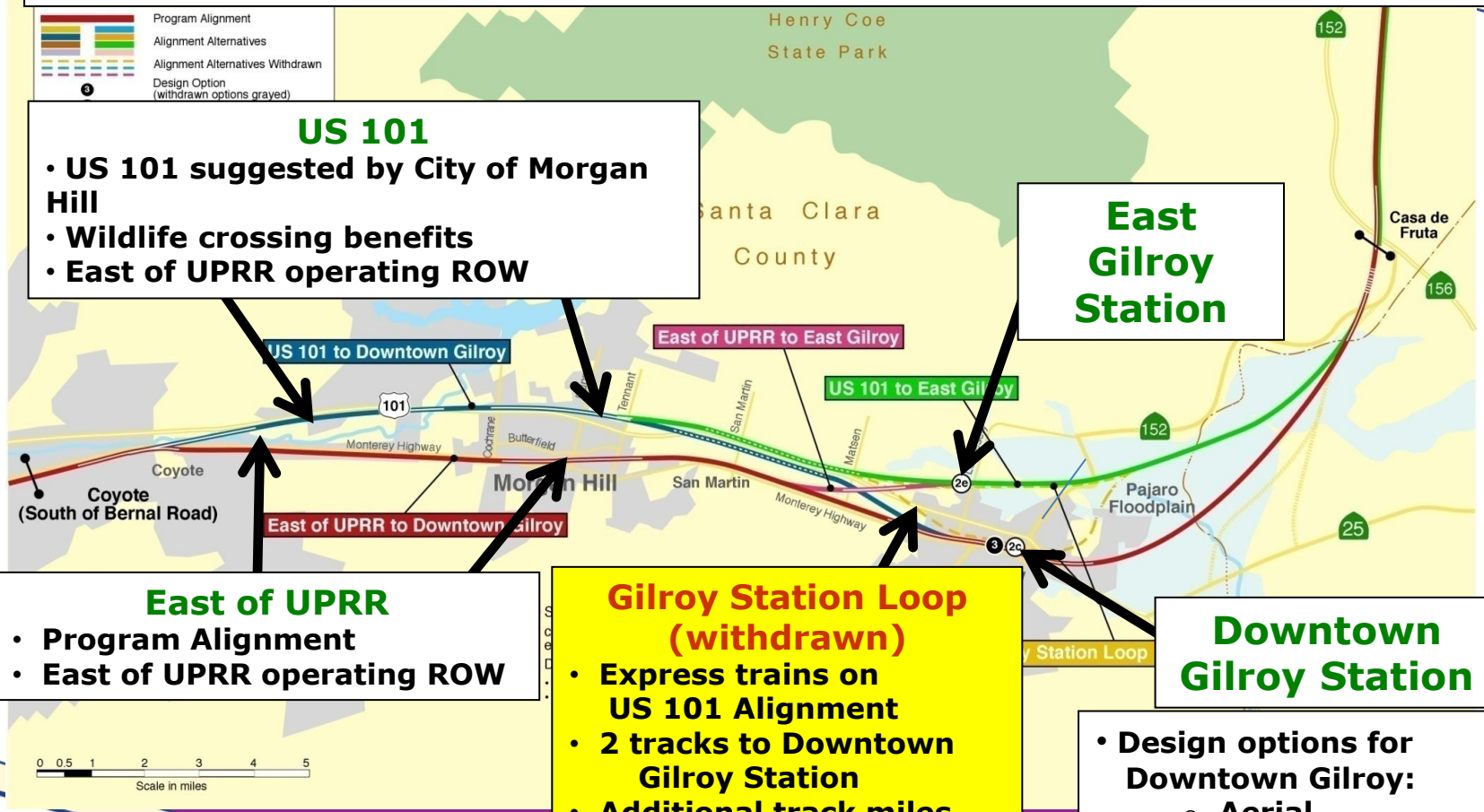
MORGAN HILL – GILROY SUB-SECTION

COMBINATIONS OF TWO ALIGNMENTS AND TWO STATION LOCATIONS



US 101

- US 101 suggested by City of Morgan Hill
- Wildlife crossing benefits
- East of UPRR operating ROW

East Gilroy Station

East of UPRR

- Program Alignment
- East of UPRR operating ROW

Gilroy Station Loop (withdrawn)

- Express trains on US 101 Alignment
- 2 tracks to Downtown Gilroy Station
- Additional track miles, impacts & costs

Downtown Gilroy Station

- Design options for Downtown Gilroy:
  - Aerial
  - Trench – Cost 1.3 times Base Case

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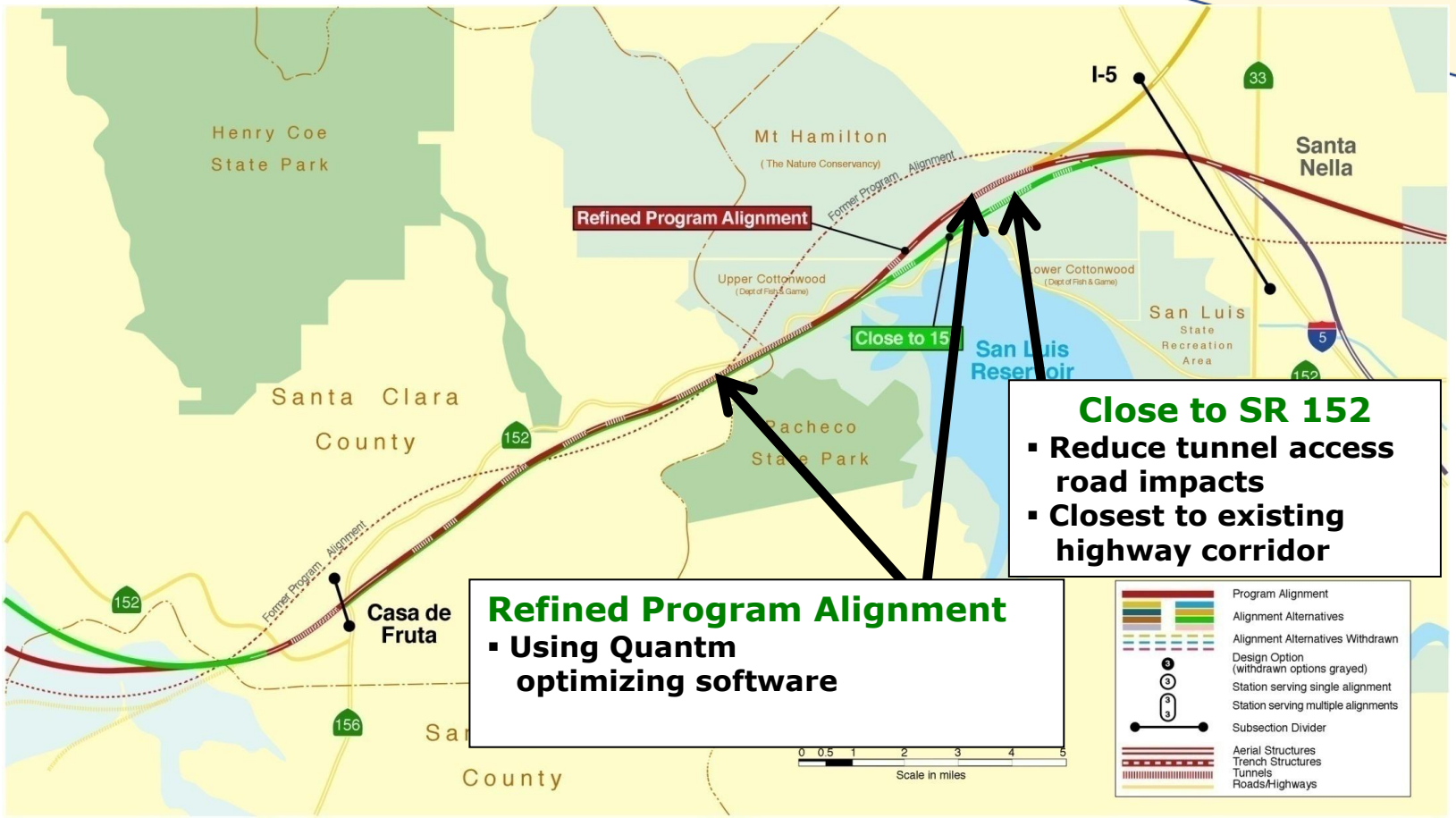
PACHECO PASS SUB-SECTION



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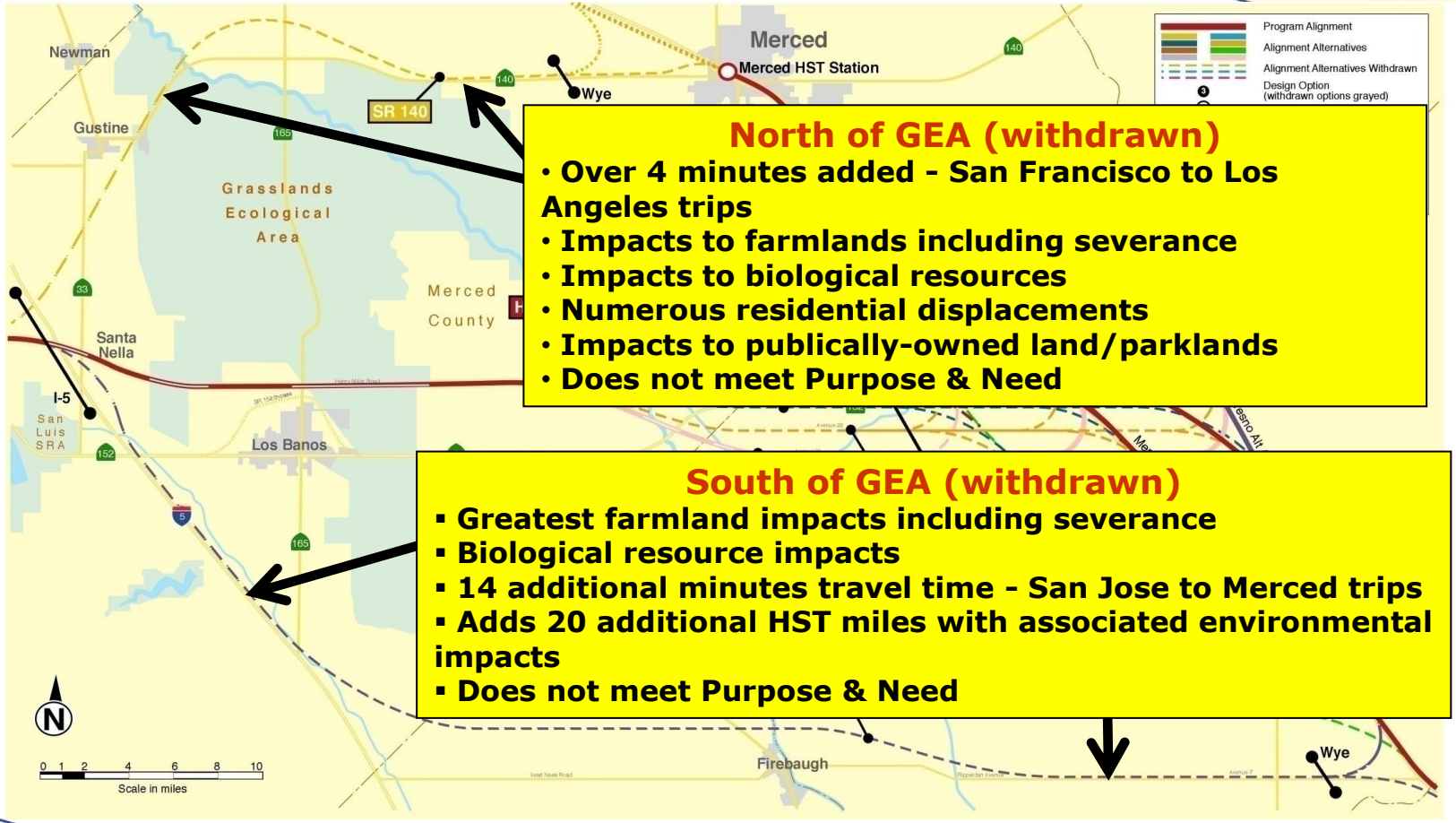
SAN JOAQUIN VALLEY CROSSING SUB-SECTION



North of GEA (withdrawn)

- Over 4 minutes added - San Francisco to Los Angeles trips
- Impacts to farmlands including severance
- Impacts to biological resources
- Numerous residential displacements
- Impacts to publically-owned land/parklands
- Does not meet Purpose & Need

South of GEA (withdrawn)

- Greatest farmland impacts including severance
- Biological resource impacts
- 14 additional minutes travel time - San Jose to Merced trips
- Adds 20 additional HST miles with associated environmental impacts
- Does not meet Purpose & Need

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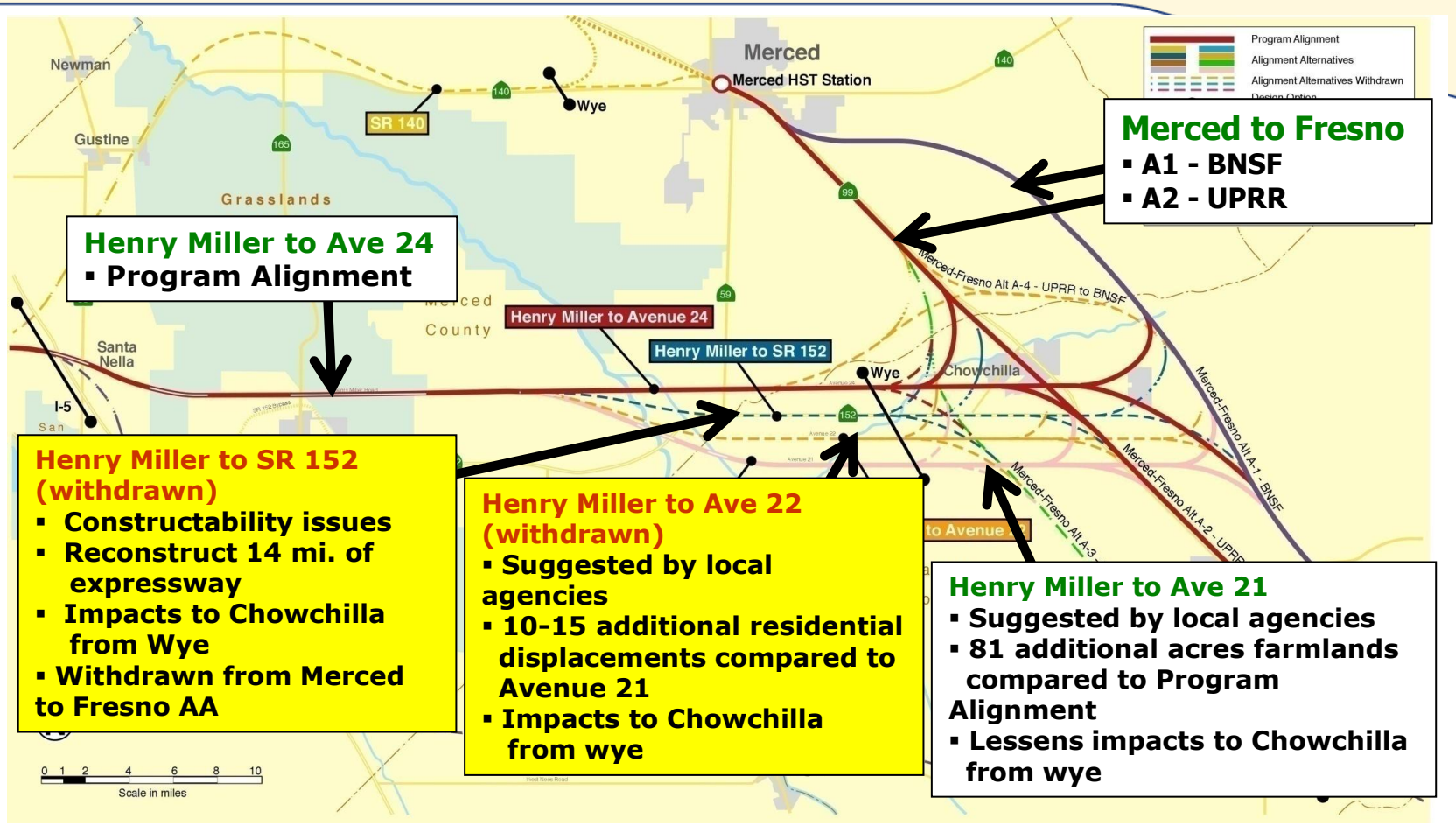
SAN JOAQUIN VALLEY CROSSING SUB-SECTION



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ALIGNMENTS CARRIED FORWARD INTO DRAFT EIR/EIS

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TAMIEN TO MONTEREY HIGHWAY

*Preliminary alignment, subject to change

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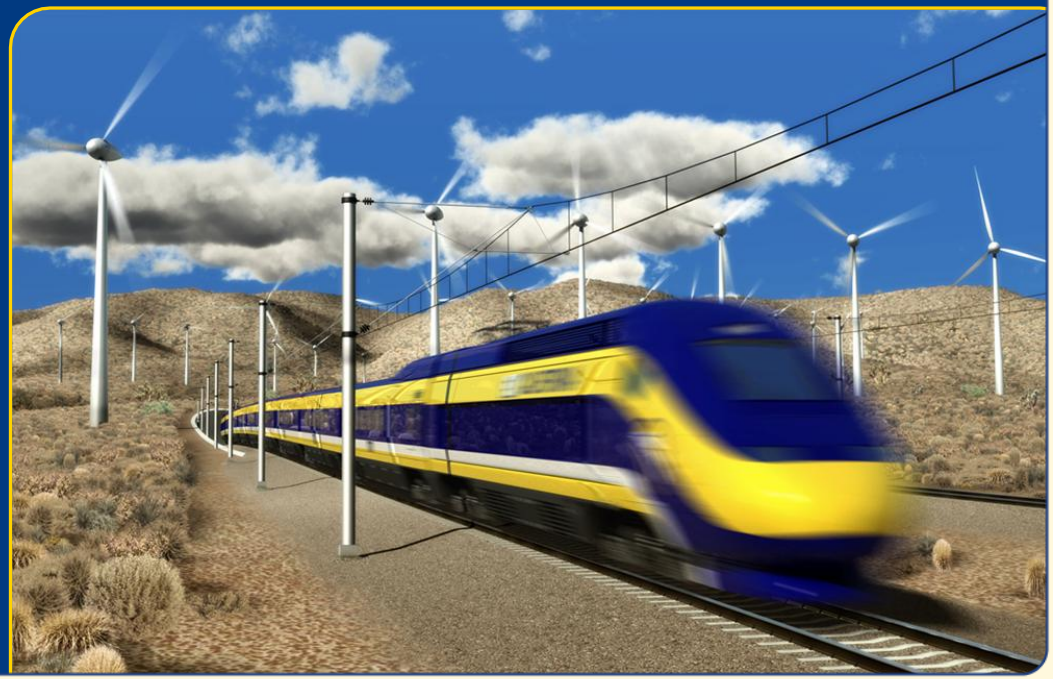
SOUND AND CALIFORNIA'S HIGH-SPEED TRAINS



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SOUND AND CALIFORNIA'S HIGH-SPEED TRAINS

- We understand that sound is a key concern.
- The Federal Railroad Administration has rigorous procedures to measure sound that the Authority will follow.
- The Authority will work with the public and partner agencies to consider ways to mitigate significant sound impacts.

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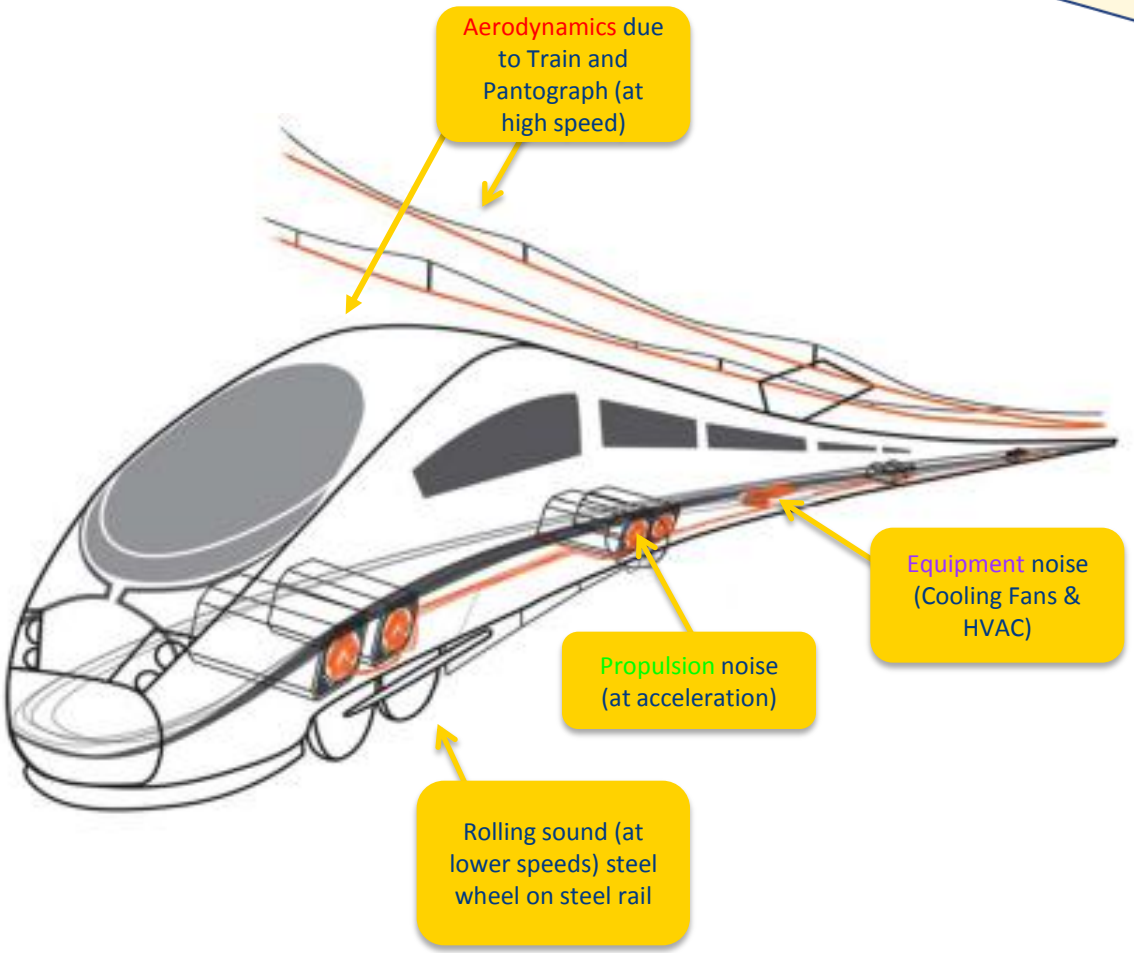
HIGH-SPEED TRAINS CREATE FOUR KINDS OF SOUND

Rolling – sound from the wheels as trains move along the tracks.

Propulsion – sound from motors and gears that make the train move.

Equipment – sound from cooling fans and air conditioners.

Aerodynamics – sound from the flow of air moving past the train at high speed.



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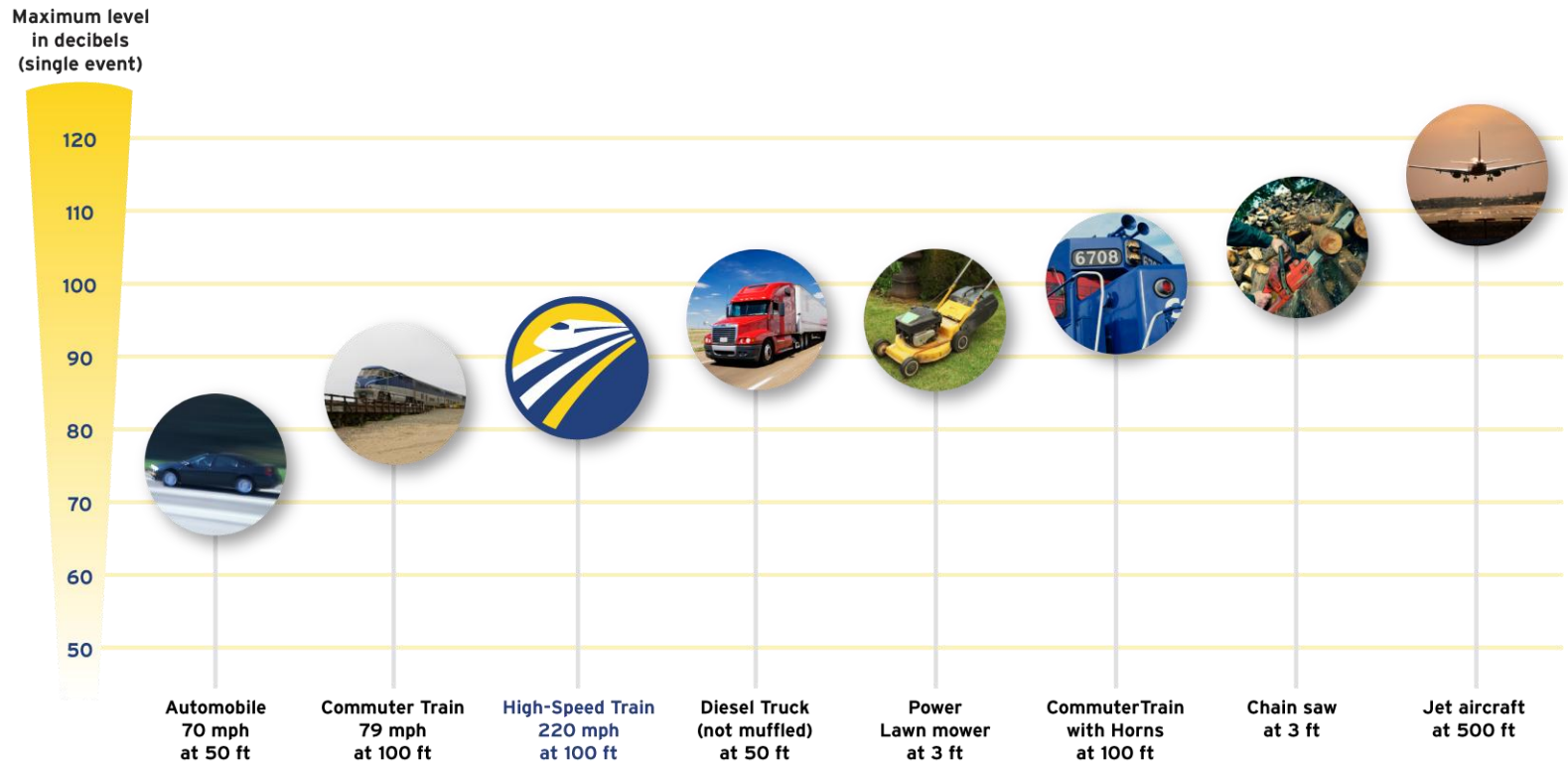
HOW DOES THE SOUND FROM HIGH-SPEED TRAINS MEASURE UP?



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THOROUGH ENVIRONMENTAL ANALYSIS

The review will look at two key measurements:

- ***One-Hour Equivalent Sound Level***, which measures the moment-to-moment fluctuations in sound **over a single hour** – taking into account both the number of trains and the time they take to pass by – the best measure for assessing the impacts on offices, schools and libraries.

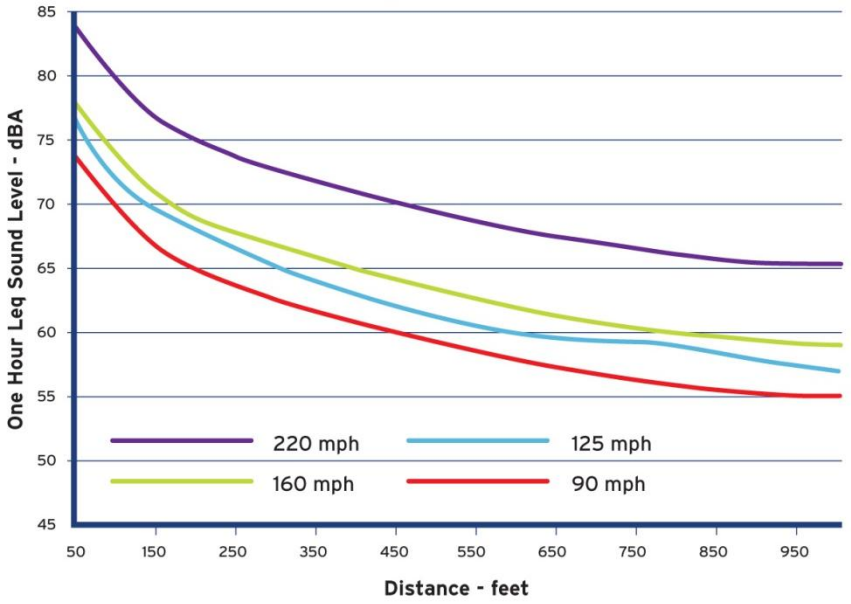
- ***Day-Night Sound Level*** looks at sound fluctuations **over a full 24 hours**, taking into account the heightened sensitivity in residential areas to sounds made late at night.

HERE'S WHAT YOU CAN EXPECT

For offices, schools and libraries:

- In urban and highly developed suburban areas, **a high-speed train traveling 125 mph** will produce an hourly equivalent sound level of about **73 decibels from a distance of 100 feet** – less than a commuter train with a blowing horn.

One-Hour Noise Levels



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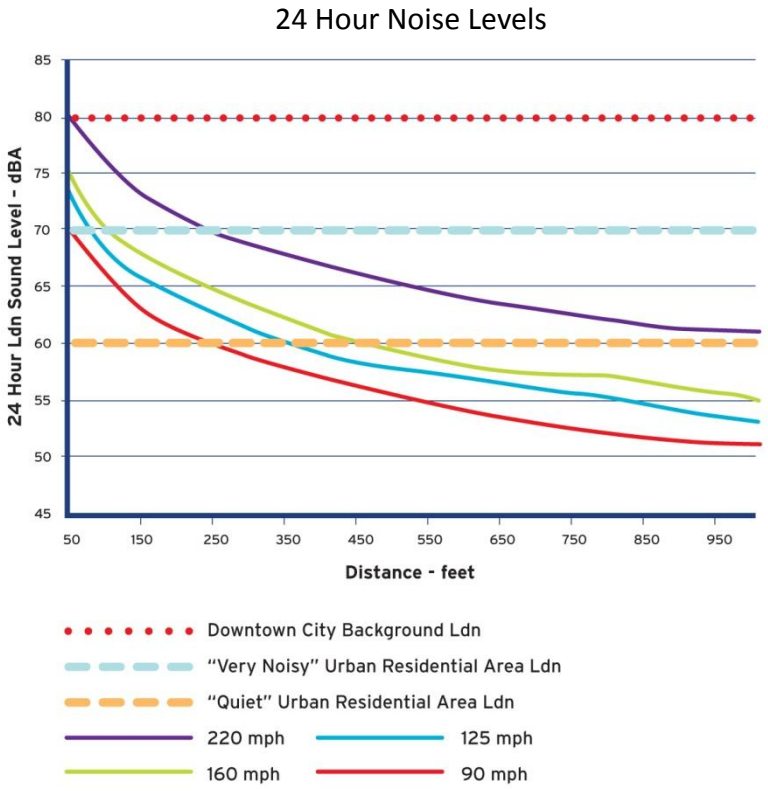
HERE'S WHAT YOU CAN EXPECT

For residential neighborhoods:

- In downtown city settings, high-speed trains – even at top speed – will be **within the existing noise levels** from traffic and other sources.
- In noisy urban residential areas, high-speed trains – even at top speed – will be **within existing noise levels for everyone except listeners within 250 feet of the tracks.**
- In quiet residential areas, high-speed trains – depending upon speed – **could affect noise levels for listeners within 1,000 feet** of the tracks.



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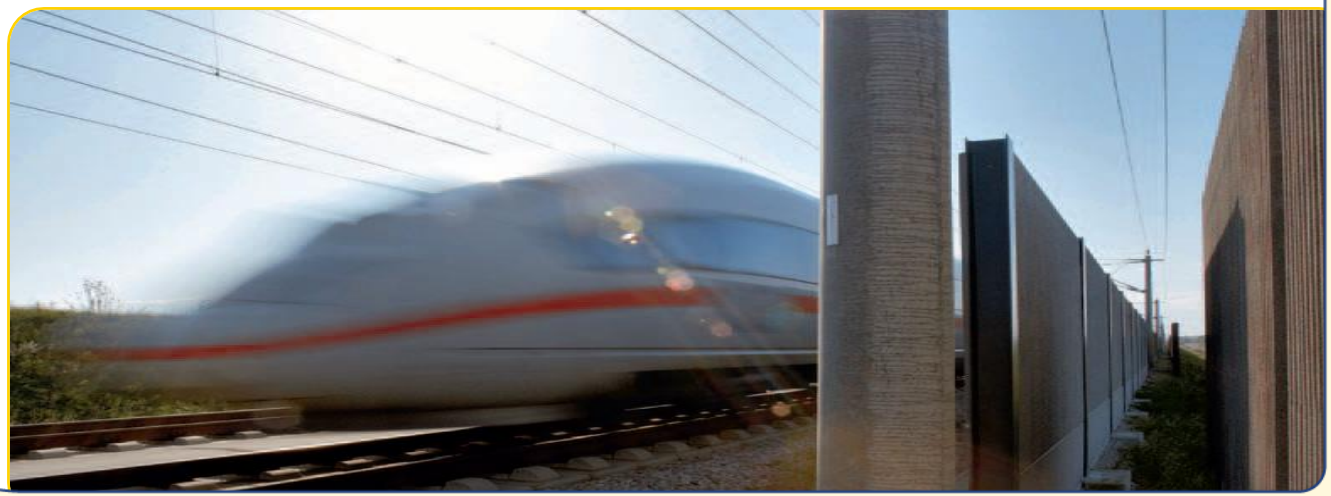
FAST TRAINS MAKE FOR SHORTER SOUNDS

A train moving at 220 mph – the top speed of California's high-speed trains – will be heard for about **four seconds**

By comparison….

A 50-car freight train traveling at 30 mph can be heard for **one minute**



CALIFORNIA High-Speed Rail

COMMITMENT TO SOUND MITIGATION

Operations

- In major urban areas (Bay Area, Los Angeles and San Diego) high-speed trains will mostly run at speeds of **125 mph or less.**
- High-speed trains won't have scheduled passenger service between midnight and 5 a.m.
- Grade-separated system will **eliminate the need for blaring horns.**

Technology

- Newer high-speed trains **quieter than earlier models** and conventional trains
- Electrically powered, **no noisy diesel engines**

Rhine River Viaduct, Germany

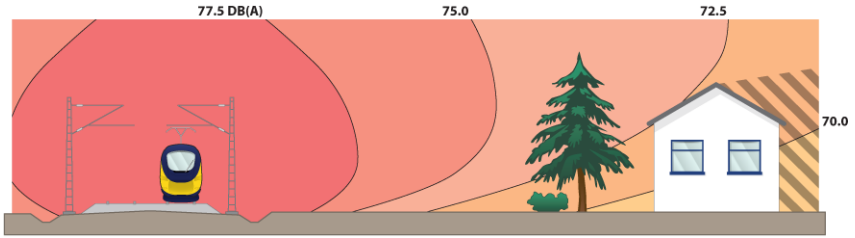
SCNF High-Speed Train System, France

CALIFORNIA High-Speed Rail

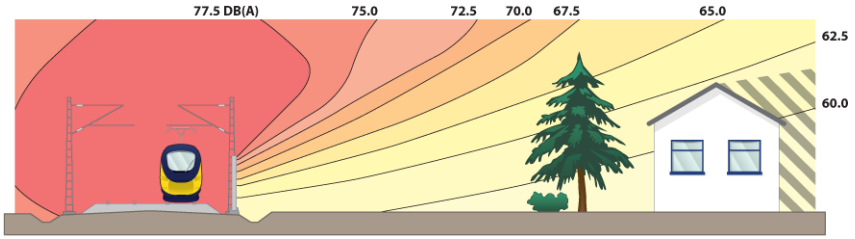
COMMITMENT TO SOUND MITIGATION

Engineering and design will make a big difference

- Sound engineers and train builders have over 40 years experience – and good mitigation measures are working around the world.
- For a train traveling less than 160 mph, a six to 12-foot sound barrier will **reduce noise by five to nine decibels** (the human ear perceives a 10-decibel reduction as cutting the sound in half).
- The sound from a high-speed train operating on an aerial structure could be **one or two decibels higher** than at ground level.
- The sound from a high-speed train operating in an open trench could be **five to seven decibels lower** than at ground level.



Noise levels without sound barrier



Noise levels with sound barrier

CALIFORNIA High-Speed Rail

GET INFORMED AND BE HEARD

- The California High-Speed Rail Authority has issued a detailed fact sheet and posted it on our website so that people concerned about these issues can understand them and participate in the process.
- Your feedback will help make sure California's high-speed train project becomes a good neighbor to the communities it serves.

www.cahighspeedrail.ca.gov

CALIFORNIA High-Speed Rail

SAN JOSE TO MERCED NEXT STEPS

- Supplemental AA – Early 2011
- 15% design – May 2011
- Draft EIR/EIS - August 2011
- Final EIR/EIS - April 2012
- Record of Decision – May 2012

QUESTIONS/COMMENTS

Contact Us:

- **Website:** http://www.cahighspeedrail.ca.gov
- **Phone:** 1-800-881-5799

Comments:

- **Email:** san.jose_merced@hsr.ca.gov
- **Postal Mail:**
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